

What is claimed is:

1. A data transmitting apparatus for transmitting a plurality of real time streams and a non-real time stream over a common transmission path, comprising:

storing means for storing first packets that compose the real time streams and second packets that compose the non-real time stream; and

transmitting means for transmitting the first packets stored in the storing means at predetermined intervals, transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of the first packets are longer than the transmission times of the second packets.

2. The data transmitting apparatus as set forth in claim 1,

wherein the transmitting means is configured to calculate the transmission end times of the first packets with the transmission intervals of the first packets and the transmission times of the first packets.

3. The data transmitting apparatus as set forth in claim 1,

wherein the transmitting means is configured

to treat the transmission times of the second packets multiplied by a positive coefficient that is smaller than 1 as new transmission times of the second packets in case that the second packets are not transmitted
5 while a predetermined number of the first packets are transmitted.

4. A data transmitting method for transmitting a plurality of real time streams and a non-real time stream over a common transmission path, comprising the
10 steps of:

storing first packets that compose the real time streams and second packets that compose the non-real time stream; and

transmitting the first packets stored at the
15 storing step at predetermined intervals, transmitting a first packet whose transmission end time is the earliest in the first packets when the transmission times of the first packets overlap, and transmitting the second packets when the transmission intervals of the first packets are longer than the transmission
20 times of the second packets.

5. The data transmitting method as set forth in
claim 4,

wherein the transmitting step is performed by
25 calculating the transmission end times of the first packets with the transmission intervals of the first packets and the transmission times of the first

packets.

6. The data transmitting method as set forth in
claim 4,

5 wherein the transmitting step is performed by
treating the transmission times of the second packets
multiplied by a positive coefficient that is smaller
than 1 as new transmission times of the second packets
in case that the second packets are not transmitted
while a predetermined number of the first packets are
10 transmitted.